UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/802,420	03/09/2001	Raymond G. Blair	WC0001-A	7956

28168 7590 10/07/2002

CTS WIRELESS COMPONENTS/ CTS CORPORATION
PATENT LAW DEPARTMENT
171 COVINGTON DRIVE
BLOOMINGDALE, IL 60108

EXAMINER
BOSWELL, ALAN M

ART UNIT.	PAPER NUMBER
3729	

DATE MAILED: 10/07/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/802,420	BLAIR ET AL.	
	Examiner	Art Unit	
	Alan M Boswell	3729	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *29 May 2002* .

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *27-38* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *27-38* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Drawings

1. Figure 6 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g). A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claim 38 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 38, the limitation "the underlying ceramic" in line 8 lacks proper antecedent basis.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

5. Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 6081174 to Takei.

Regarding claim 27: Takei teaches forming a block of ceramic material (3a, 3b) (see Fig. 2) having an outer surface with at least one pair of opposing sides and defining a plurality of through holes (16a, 16b) extending between the opposing sides covering with a conductive coating, heat-treating the coated block (see col. 7, lines 35-39) and ablatively etching a selected area of the block to form a pattern of metallized and unmetallized areas on the block wherein the step of ablatively etching is carried out such that the unmetallized area are recessed in to the block of dielectric material (see Fig. 2) except it is two blocks instead of one integral block.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to make one block, since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art Howard v. Detroit Stove Works, 150 U.S. 164 (1893).

6. Claims 28-37 are rejected under 35 U.S.C. 103(a) as being unpatentable over Takei as applied to claim 27 above, and further in view of US Patent No. 6154106 to De Lillo.

Regarding claims 28, 33 and 37: Takei teaches the above limitations but fails to teach a second step of heat treating the patterned block.

De Lillo teaches the step of heat-treating the patterned block (see col. 10, lines 1-14) in order to maintain performance as the center frequency deceases.

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to modify the invention of Takei in light of the teaching De Lillo to heat-treat the patterned block in order to maintain performance as the center frequency deceases.

Regarding claims 31, 32, 34 and 36: Takei teach using a scanning laser beam to ablatively etch the block (see col. 7, lines 34-39).

Regarding claim 30: Takei teaches the step of covering the block with a conductive coating includes contacting the block with a silver paste (see col. 7, lines 31-34).

Regarding claims 29 and 35: Takei fails to teach heating the patterned block to temperature sufficient to reduce the insertion loss.

De Lillo teaches heating the patterned block to temperature sufficient to reduce the insertion loss (see col. 12, lines 5-50) for the purpose of maintaining the performance as the center frequency decreases.

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to modify the invention of Takei in light of the teaching of De Lillo to heat the patterned block to temperature sufficient to reduce the insertion loss for the purpose of maintaining the performance as the center frequency decreases.

7. Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Takei in view of De Lillo as applied to claim 37 above, and further in view of US Patent 5512866 to Vangala.

Takei fails to teach having transmitter, antenna and receiver pads.

Vangala teaches having transmitter, antenna and receiver pads (see col. 2, lines 40-41) for the purpose of making the tuning the frequency more efficiently and effectively.

It would have been obvious to one of ordinary skill in the art, at the time of the invention, to modify the invention of Takei and De Lillo in light of the teaching of Vangala in order to control the capacitive coupling in the dielectric filter.

Response to Arguments

8. Applicant's arguments with respect to claims 27-38 have been considered but are moot in view of the new ground(s) of rejection.

9. In response to applicant's argument that the references fail to show certain features of applicant's invention, it is noted that the features upon which applicant relies (i.e., fully coats or encasing) are not recited in the rejected claim(s). Although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Conclusion

10. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Telephone inquiries regarding the status of applications or other general questions, by persons entitled to the information, should be directed to the group clerical personnel. In as much as the official records and applications are located in the clerical section of the examining groups, the clerical personnel can readily provide status information. M.P.E.P. 203.08. The Group clerical receptionist number is (703) 308-1148.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Alan M Boswell whose telephone number is (703) 305-0308. The examiner can normally be reached on M-F (7:30-5:00) Second Monday Off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter D. Vo can be reached on (703) 308-1789. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 305-3579 for regular communications and (703) 305-3579 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-2572.

Other helpful telephone numbers are listed for applicant's benefit.

Allowed Files & Publication	(703) 308-6789 or (888) 786-0101
Assignment Branch	(703) 308-9723
Certificates of Correction	(703) 305-8309
Drawing Corrections/Draftsman	(703) 305-8404/8335
Petitions/Special Programs	(703) 305-9285
Terminal Disclaimers	(703) 305-8408
PCT Help Desk	(703) 305-3257

If the information desired is not provided above, or a number has been changed, please call the general information help line below.

Information Help line	1-800-786-9199
Internet PTO-Home Page	http: www.uspto.gov

ab
September 27, 2002

PETER VO
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700